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(54) **PLANAR MEMBRANE DEOXYGENATOR**

- (75) Inventors: **Louis J. Spadaccini**, Manchester, CT (US); **Steven Lozyniak**, South Windsor, CT (US); **He Huang**, Glastonbury, CT (US)
- (73) Assignee: **United Technologies Corporation**, Hartford, CT (US)

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Primary Examiner—Robert H. Spitzer

(74) Attorney, Agent, or Firm—Carlson, Gaskey & Olds

(57) **ABSTRACT**

A fuel deoxygenator includes a plurality of fuel plates defining fuel passages through a housing. A permeable membrane supported by a porous substrate is in contact with fuel flowing through the fuel passages. A vacuum in communication with the porous substrate creates a differential pressure between oxygen within the fuel and the porous membrane. The oxygen partial pressure differential causes oxygen dissolved within the fuel to migrate from the fuel through the permeable membrane away from the fuel. Fuel exiting the outlet includes a substantially reduced amount of dissolved oxygen.

23 Claims, 6 Drawing Sheets

